

ABSTRACT

A method for regulating execution of an application program includes a process for preparing the application and a process for executing the application. The preparation process divides the application program into related segments and encrypts instructions of at least one segment. The preparation process positions encrypted instructions in at least two discontiguous regions within an executable file and associates header information with at least one discontiguous region. The header identifies a decryption key and the location of the other discontiguous region. The resulting execution file thus has portions that would not execute and would cause an operating system to call a responsive process. The execution process initiates execution of the protected application when at least a portion of the application instructions are available to the computer only in encrypted form. The user is authenticated, after which the encrypted portions can be decrypted and execution resumed. The processes may also include capability to detect and respond to tampering, or the ability to block execution snooping via a debugger.